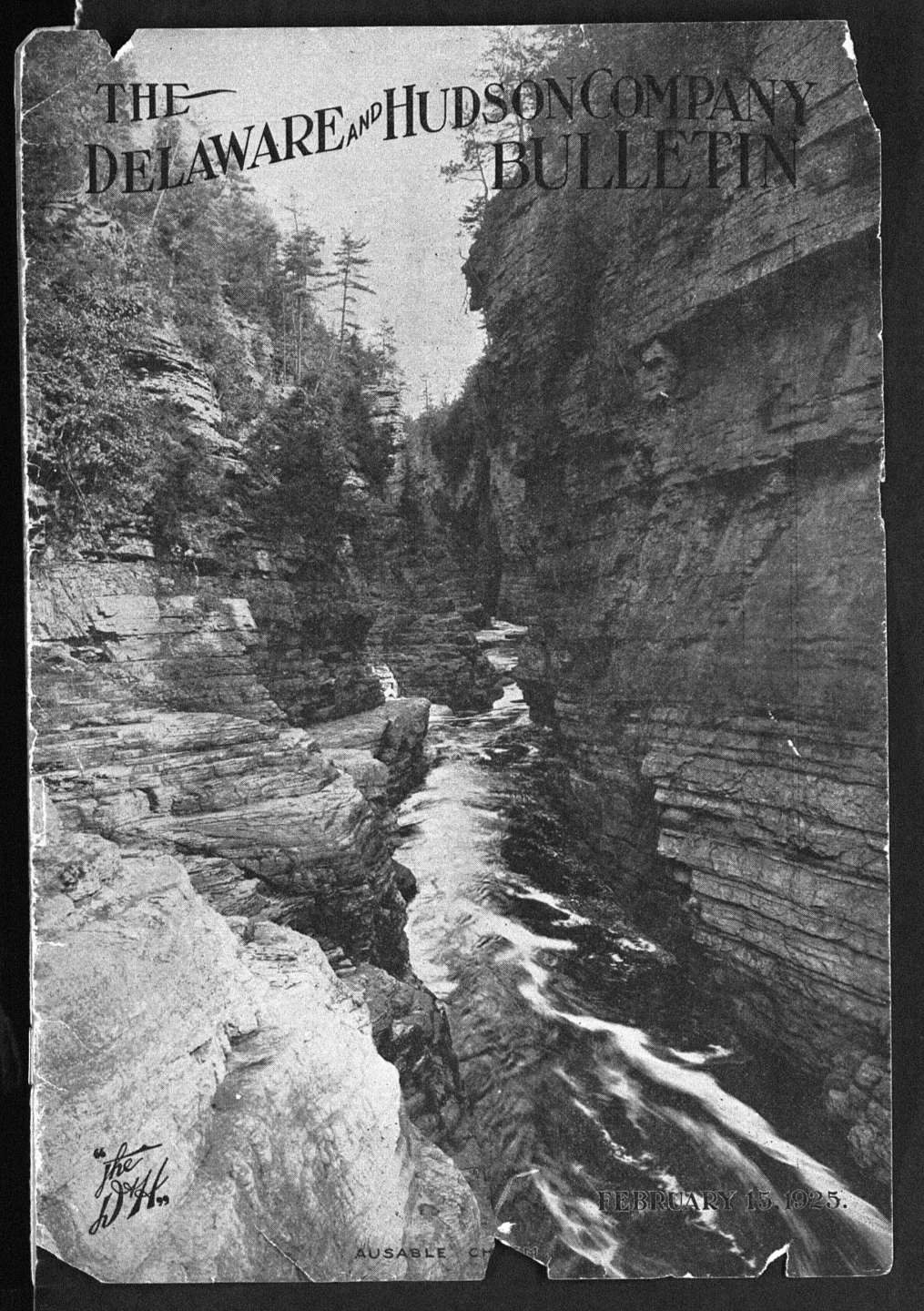


THE DELAWARE AND HUDSON COMPANY BULLETIN



*The
D.H.*

FEBRUARY 15, 1925.

AUSABLE CH

DOES IT PAY?

ARE YOU A CONTRIBUTOR TO
THE DELAWARE AND HUDSON
COMPANY'S PLAN OF

GROUP INSURANCE



URING the year just ended, 2,486 employees completed six months of service, 2,420 of whom, or 97.3 per cent., subscribed for additional insurance; and, of 1,676 employees completing two years of service, 1,579, or 94.2 per cent., subscribed for additional insurance.

On December 31, 1924, there were 10,701 employees, or 84.6 per cent., of the total eligible, insured under the contributory provisions of the Plan; while since it has been in operation, or covering the period of 1922-23-24, benefits have been drawn in 2,105 individual cases amounting in the aggregate to

\$626,726.51

DISTRIBUTED AS FOLLOWS:

Claims	Option	Amount
353	Life	\$417,412.77
1,470	Health	154,529.46
158	Accident	11,726.35
18	Accidental Death and Dismemberment	29,100.00
19	Total and Permanent Disability	7,582.27
87	Unemployment	6,375.66
2,105	Total	\$626,726.51

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D.H.*

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DELAWARE AND HUDSON COMPANY

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BULLETIN

Vol. 5

Albany, N. Y., February 15, 1925

No. 4

Realized Boyhood's Dreams

*Veteran Employee's Ambitions to be a Locomotive Engineer Were Gratified by
Forty-two Years of Service at the Throttle*

DEAMS—day dreams that stir our ambitions, if you please—sometimes come true though they may appear, at their origin, to be but fanciful air castles. So it was with MILO GARDNER of No. 80 Cemetery Street, Carbondale, Pa., retired locomotive engineer, who enjoys a record of forty-eight years and twenty-one days of continuous service with the Company. He dreamed, as a boy, and has lived to enjoy the full fruition of what he thus saw in the future. He was pensioned on May 1, last.

From points of vantage in the door-yard that surrounded his grandfather's home near Factoryville, Pa., when but a lad, eight or nine years old, he was wont to watch the little trains of the Delaware, Lackawanna and Western as they wended their way up the hillside from Scranton. At times, he became virtually riveted to the ground upon which he stood, by the strange fascination of the scene being enacted before his eyes, and would dream of the day when he, too, might live the life of a railroad man, particularly that of a locomotive engineer. Stronger, indeed, became this grip upon him, when at night he could trace into the far distance the movements of the trains by the trail of light kept bright by the sparks that poured forth from the stacks of the little wood burners as they trudged along with their loads of freight or human beings. Anyone who

in childhood dreamed thusly, can readily appreciate the influence which guided his course henceforth.

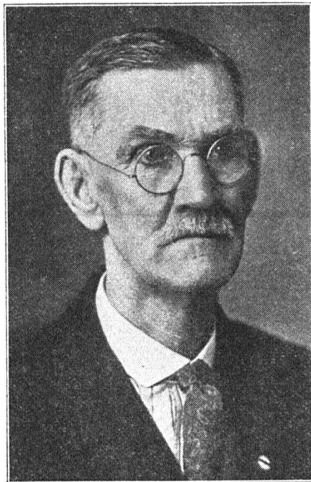
He was born at Factoryville, April 19, 1859, and was the eldest of three children of Jeremiah

and Matilda Gardner. His father died in the service of his country two weeks after he had enlisted in the Union army; and two or three years later the mother, still a young woman, died also. Thus, at the age of eight, he faced the world an orphan.

For four years he lived with his grandfather and then was admitted to a school which had been established at Harford, Susquehanna county, for the care and education of soldiers' orphans. There he remained until he was sixteen years old, meanwhile attaining the rank of captain in one of the school's cadet companies. Such were his experiences during those years, that he still recounts them with considerable fervor and enthusiasm. None of the time, however, did his fascination for the railroad wane. Unable as he

was to see the trains as they passed in the distance, he nevertheless could hear them and the noises they set up were ever music to his ears.

Not long after his graduation, he became acquainted with Amos Carroll, then assistant superintendent for the Company at Green Ridge, Pa. He made application through him for a



MILO GARDNER

position on the road, with the result that at 7 o'clock "sharp," as he tells it, on the morning of April 10, 1876, he started work as a track laborer under Sterle Ross. His associates in the gang were all of Irish or Welch descent.

Train service continued to have its lure, however, and three or four months later he received permission to go "braking" for Otto Myers, on the Van Storch breaker run. That work covered the movement of coal from the breaker in the upper end of the yard at Green Ridge to the foot of "G," as the last plane of the old gravity system, at Olyphant, was designated. Dean Hayden, as he recalls, was the engineer.

Fully satisfied with train work, he continued on the mine run until during a dull period when a brakeman at Mill Creek (Hudson) relinquished his position, and this he accepted. From then on, or until the miners' strike of 1877, he worked with "Skip" Shafer. The wild scenes connected with that disturbance, how the miners swept down through the valley armed with guns and clubs and other defensive weapons, threatening, as they passed, all whom they thought to be opposed to their cause—these incidents he remembers as well as if they had happened only yesterday. Their train was quickly surrounded with the intention of "cutting off" the engine, but upon the promise that its fire would be "pulled" upon arrival at Mill Creek no trouble ensued and the mob passed on its way.

His locomotive service dates from October 1, 1876. That was the day on which he first left the yards at Green Ridge as a fireman, making the trip with "Tom" Williams. His real apprenticeship, however, was served under "Dad" (Truman) Utley, who later left the road during the Manville regime and is now a neighbor in Cemetery Street, Carbondale. The locomotive which they had at that time was the George F. Wilbur, later known as the No. 20.

One experience of his earlier days on the road which has since caused him much amusement, was a verbal clash he had with "Bill" Halstead, as he speaks of him, then president of the Delaware, Lackawanna and Western. It was at a crossover where the tracks from the Cliff Works, at Scranton, where many of the earlier locomotives used on the Valley road, as the lower end of the Pennsylvania division then was known, were built, intersected those of the Lackawanna. Halstead had often been a visitor at his grandfather's home at Factoryville when he was living there as a boy, but he failed to recognize his identity until some time after the controversy. Later, desiring to make a trip to Elmira, he called at Halstead's office and interviewed him personally. Halstead eyed him closely, and then, apparently having recognized and, scribble! the necessary authority upon a scrap of paper and handed it to him without comment.

For some time he fired the old No. 10 for Miles Biesecker, hauling the renowned "Mike" Maloney. Biesecker was inclined to be spiteful at times. On one of their first trips together, his stubbornness caused them to become stalled on the main line between Stevens Point and Starucca. The engine did not steam well when running at slow speed and Miles knew this well, but on that particular occasion he would travel no faster than about four or five miles an hour with the result that they were out of steam when they reached Melrose, a station long since abandoned.

When promoted to the position of engineer on April 23, 1882, he had just passed his twenty-third birthday and became the youngest man at the throttle of a Pennsylvania division locomotive at that time. The reason for this was that he had stepped in among men much older than he at a time when promotions were slow. When they were set up, however, the exigencies of the service likewise brought him a promotion. He "drew" the J. B. Van Bergen, No. 17, and was assigned to pusher service on the hill north of Carbondale.

The first day out on the road was one full of excitement, one which he frequently recalls today. His experiences were the more thrilling, perhaps, because of the fact that for the first time full responsibility for the performance of the engine rested upon his judgment. Next, he was assigned to "Coal 5," between Carbondale and Nineveh, pulling George Farrell, later a conductor on Nos. 1 and 2, but who left the road many years ago.

His promotion to passenger service came with the death of Engineer Benscoter, and for about twenty-three years he ran on trains Nos. 504 and 509, and 513 and 514, serving the greater part of that time with Conductor Henry Johnson.

He likes to tell of the great consideration engineers and firemen of his day had for the equipment which they handled and of how those who failed to keep their locomotives looking spick and span were forthwith regarded as slouches. On more than one occasion he made the run to Nineveh and back, as a fireman, without once sitting down. When he was not busy before the yawning doors of the firebox, he was out on the running boards or elsewhere cleaning and polishing the brass trimmings that then adorned all locomotives. When a storm threatened, it was the practice to protect these trappings by going over them with greasy waste.

Much of his success he attributes to punctuality and to the fact that he was a steady worker. It was not unusual for him to work a hundred days or even more without once absenting himself. During his earlier service, he was obliged to make many of the running repairs necessary

(Concluded on Page 13)

Sketches of Early History

OLD FORTS

BELOW is a short, geographically arranged sketch concerning a chain of twenty-eight forts reaching from Albany to the St. Lawrence along the route of the Delaware and Hudson, prepared to aid our readers to a clearer understanding of certain historical articles that are to follow and in which various outstanding historical localities on the old war path of nations will be dealt with separately.

* * *

FORT FREDERIC, the first in order, stood in State street, Albany, just below the present site of the State Capitol. It was large and well armed. In fact, Albany was at all times prepared for attack although no military engagements were ever fought there.

* * *

FORT NASSAU was erected in 1614 by Hendrick Christensen, on Castle Island near Rensselaer, and was the first fort built in the vicinity of Albany. Castle Island for a long time known as Patroon's Island, has since become a part of the main land. About 1540, French fur traders constructed a fortified trading post on the same spot.

* * *

FORT INGOLDSBY, built during Queen Anne's war, 1709, was near the village of Stillwater and was intended as a supply post for Nicholson's expedition against Canada. It was given its name in honor of the then Lieutenant-Governor of the province.

* * *

FORT WINSLOW, also located on the site of Fort Ingoldsby at Stillwater, was erected in 1756. It was named for General John Winslow who succeeded General Johnson to the command of Fort William Henry in 1756, and was designed as a supply station on the road northward from Albany.

* * *

FORT SARATOGA was built in 1709, on the Hudson opposite the mouth of Fish creek, by Colonel Peter Schuyler, and on the same spot where he had built a block house in 1690, about which a little settlement later grew up. It was planned as one of the chain of supply posts in Nicholson's expedition against the French.

* * *

FORT CLINTON was Fort Saratoga as rebuilt in 1746, the location being slightly changed, however.

On the night of June 17, 1747, it was approached by a band of French and Indians under LaCorne St. Luc. At daybreak firing began, the French pouring a galling fusillade into the English ranks. The guns of the fort opened on the French but the Indians rushed the English and, with tomahawk in hand, drove them into the fort. The Indians killed and scalped twenty-eight of the English and took forty-five prisoners. In the fall of 1747, Fort Clinton was abandoned and burned by order of Governor Clinton.

* * *

FORT HARDY, erected in August 1775, was built by General Phineas Lyman at the mouth of Fish creek at Schuylerville. It was christened in honor of Sir Charles Hardy, Governor of New York, and was intended as a supply station for Johnson's expedition which was then advancing against Crown Point.

* * *

FORT MILLER was built during Queen Anne's war, 1709, at the rapids in the Hudson between Schuylerville and Fort Edward, by Colonel Peter Schuyler who commanded the vanguard of Nicholson's expedition. It was designed to defend the landing at that point, and was thus an important link in the chain of posts established to relay supplies for the expedition.

* * *

FORT NICHOLSON, located at Fort Edward, was the first fortification established at the Hudson river end of the Great Carry to Lake Champlain. It was built by Colonel Peter Schuyler in 1709, but upon Nicholson's retreat from Lake Champlain it was abandoned.

* * *

FORT LYDIUS was built on the ruins of Fort Nicholson at Fort Edward, 1732, by John Henry Lydius who established a colony at that point and purchased from the Indians a large section of land covering the great carrying place. The settlement was destroyed by the French and Indians while on their way to the massacre of Schenectady in November, 1745.

* * *

FORT LYMAN was built at the beginning of the Great Carry (Fort Edward) in July, 1755, by General Phineas Lyman. Lyman commanded a body of provincial troops and Indians, forming a part of Johnson's army for attack upon Fort

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St. Frederick at Crown Point. Its name was later changed to Fort Edward.

FORT ANN was first known as Fort Schuyler in honor of Colonel Peter Schuyler. Colonel Nicholson destroyed it in 1709, when his army retreated to Albany. Two years later, when Nicholson's second expedition reached there, it was rechristened Queen's fort and then Fort Anne. It was rebuilt in 1757. In 1758, Captain Robert Rogers fought an engagement near it with a force of French and Indians under Marin. In 1777, this fort was General Schuyler's headquarters for a time. On the arrival of Burgoyne at the head of Lake Champlain the Americans retreated to Fort Edward. Later the British occupied the partially ruined fortifications.

FORT GAGE was one of the three forts erected near the head of Lake George and was located about a mile south of Fort William Henry, near the present highway leading to Glens Falls. Its early history is not available. Supposedly, it was fortified early in the French and Indian war and was supplied with heavy guns, as it commanded the approach to Fort George from the north. According to tradition, Lord Howe encamped there in 1758 with the advance guard of Abercrombie's army.

FORT GEORGE, built at the head of Lake George by General Amherst in 1759, is one of the several interesting military relics of our north country. It was Amherst's base in his advance against Ticonderoga. This fortification was captured by Colonel Bernard Romans, May 12, 1775, he taking possession of some stores for the Continental army.

FORT WILLIAM HENRY, also at the head of Lake George, was built by General Sir William Johnson in 1755, and named in honor of Henry, Duke of Gloucester, grandson of George II and brother of George III. It was well situated to command one of the strategic locations on the war trail from Lake Champlain to Albany. Here began the portage from Lake George to the Hudson at Fort Edward. The fort stood on an eminence overlooking the lake and was well planned to resist assault. It was surrendered to Montcalm on August 9, 1757, after which he demolished it.

FORT VAUDREUIL on the tip of a peninsula extending into Lake Champlain at Ticonderoga, was erected by the French in 1755. Often spoken of as Grenadier's Battery, it was, so far as can be learned, the first fortification in that locality. Some of its walls and outlines can still be traced.

FORT CARILLON, located where Fort Ticonderoga now stands, was built by the French in 1756-58. It was captured by Amherst in 1759, although the French destroyed it on their retreat.

FORT TICONDEROGA, raised on the site of Fort Carillon on the prominence which commands the southern extremity of Lake Champlain, was erected by the English in 1759. From 1755 to 1780 this fort and its predecessors, Forts Vaudreuil and Carillon, were in a veritable maelstrom of military strife.

FORT ST. FREDERICK was erected by the French in 1731, on the point of land extending into Lake Champlain two miles south of Fort Henry. It consisted of high, thick walls of limestone, enclosing stone barracks, a church, and a bomb-proof tower. Sixty-two mounted cannon comprised its armament. General Amherst invested it in 1759.

FORT CROWN POINT, the walls and ruins of which still remain, was built in 1759-60 by Amherst. In 1773 the barracks took fire and the magazine exploded, partially demolishing the fortification. This fort was, for a time, known as Fort Amherst. Seth Warner and his Green Mountain Boys captured it on May 11, 1775, but abandoned it on the approach of Burgoyne in 1777. It never after enjoyed military prominence.

FORT WILLIAM, a block house near the mouth of Otter creek (Vermont), was the scene of a part of the bitter strife between the settlers under the New Hampshire grants and those of New York. It was erected by Ethan Allen and his Green Mountain Boys to clinch the advantage they had gained in driving off settlers under the New York grant, and Scotch emigrants.

FORT ST. ANNE, the fourth of a chain of French forts in the Champlain valley, was built in 1665 on Isle LaMotte by Captain de la Mothe. It was the last outpost from which the French made raids into the territory of the Iroquois, and from which their expeditions for the massacres of Schenectady and Saratoga set forth.

FORT MONTGOMERY, one mile north of Rouses Point, was for a time called Fort Blunder, due to the fact that after the expenditure of an enormous amount of money thereon, it was discovered to be on Canadian soil. It was then abandoned until the boundary was changed giving the land to the United States. It was completed at a cost of six hundred thousand dollars, but was never fortified.

(Concluded on Page 14)

Veterans Enjoy "Get Together"

Annual Meeting of Susquehanna Division Association, at Oneonta, is Attended by More Than 100 Members Who Re-elect Former Officers

INCREASING enthusiasm in the Veteran movement was evidenced by the spirit in which more than a hundred members—veterans and their wives—considered the business that came before the annual meeting of The Delaware and Hudson Veterans' Association of the Susquehanna division, which was held in Oneonta, N. Y., on Sunday, January 25. W. C. GURNEY of Binghamton, president of the association, was in the chair, while at a meeting of the Ladies' Auxiliary, which followed immediately, Mrs. John J. Conroy of Albany, its president, directed the discussions. It was the largest and, perhaps, the most enthusiastic session in the history of the divisional association.

Arriving at Oneonta, all proceeded at once to the Windsor hotel in Chestnut street, where they joined the local veterans and their wives at dinner. This is the second occasion on which Bert Swart, the proprietor, has looked after the appetites of the veterans and that he knows just what kind of a dinner a railroad man enjoys best, was attested by the many expressions of approval concerning not only the menu but the service with which it was brought to the tables. Bouillon, roast turkey with dressing, mashed potatoes and such side dishes as vegetables, celery and mixed pickles, "topped" off with ice cream and cake, and coffee, fully satisfied the wants of all. Reservations had been made for fifty, then increased to sixty, but when all had been fed the total was figured at exactly ninety-four.

Use of the Municipal hall again had been secured through the courtesy of A. M. MCKENNEY, a retired trainman and a city alderman, and there the veterans and their wives sojourned for the business session at 1:30 p. m. The meeting was opened with the singing of "America" and the Lord's Prayer said in unison.

The entertainment committee had present Miss Dorothea Koch of Oneonta, a talented violinist and daughter of W. H. KOCH, roadmaster on the Susquehanna division, and the Colonie Car department quartette, composed of MESSRS. RUTZ, HEFFERN, KEEFE and CLICKNER, and they rendered an excellent program of music immediately preceding the more formal transaction of business. All of these folk are members of the divisional association by reason of "adoption," and have won for themselves an enviable place

in the hearts of the veterans. Stuart Pratt, a local pianist, accompanied Miss Koch in her rendition of several difficult numbers.

The quartette had previously sung at the hotel during the noon hour, but again at the meeting their old-time songs and an intimate parody in which some profound secrets in the lives of "JIM" NYE, "BILL" GURNEY and "JUD" SMITH were brought into the limelight, were heartily appreciated.

Standing to the fore in the order of business, was the election of officers for the ensuing year. PRESIDENT GURNEY reviewed rather briefly the accomplishments of the association since the date of its organization, commended the auxiliary for its interest and helpfulness, and thanked all, both the members of the association and of the auxiliary, for their splendid co-operation.

When, PRESIDENT GURNEY having relinquished his chair, nominations were called for, this item of business was summarily disposed of. "JUD" SMITH was quick to express the belief that the association was safe in the hands of those who had been at its head during the past year and, with the unanimous consent of his associates, cast one ballot for the re-election of all the officers. They are: WILLIAM C. GURNEY, president; D. H. KELLEY, vice-president; W. E. CROCKETT, treasurer, and J. T. CONNERS, secretary.

Tribute was paid to those members who had died during the year, by all standing in silent prayer, the quartette singing, meanwhile, "Nearer My God To Thee," in a most touching and impressive manner.

Other business included the reading of letters from COLONEL J. T. LOREE, vice-president and general manager, and H. F. BURCH, assistant general manager, who had been invited to join the veterans for the day but who were unable to be present. Another letter read was from John A. Giles, mayor of Binghamton and at one time connected with our engineering corps, expressing appreciation of the favor of an honorary membership which was conferred upon him on the occasion of the annual meeting of the general association, which was held in Albany on Sunday, January 11.

Under the head of "new business," arrangements were made for a dance to be held in

(Concluded on Page 10)

The

Delaware and Hudson Company BULLETIN

Office of Publication :

DELAWARE AND HUDSON BUILDING,
ALBANY, N. Y.

PUBLISHED semi-monthly by The Delaware and Hudson Company for the information of the men who operate the railroad, in the belief that mutual understanding of the problems all have to meet will help us to solve them for our mutual welfare.

Permission is given to reprint, with credit, in part or in full, any article appearing in THE BULLETIN.

Vol. 5. February 15, 1925

No. 4

Just Between Ourselves

A MERICAN labor entered the New Year enjoying the highest real wage in its history. This is approximately 100 per cent higher than the pre-war level, while, at the same time, the cost of living is only about 72 per cent higher. Just how long labor can continue to enjoy this wage is largely within its own control. Certain radical elements, if successful, would destroy it almost over night. But a general attitude of co-operation in eliminating waste and non-productive time will go far toward continuing it indefinitely.

In this connection, a statement recently made by the Federal Reserve Bank at New York, concerning a large American industry which has plants in this country and also abroad, is of peculiar significance.

During November, 1924, the average daily wage paid to the workers of this company in its American plants was \$5.60; in its English plant, \$2.28; in its German plant, \$1.55; in its Paris plant, \$1.35; in its Belgium plant, \$1.14; and in its Italian plant, ninety-six cents.

These foreign wages are computed in dollars and cents at the prevailing rates of exchange with the currency in the countries mentioned. Thus a true comparison of purchasing power is made, and shows that American workers can live more than twice as well as English workers, and from three to four times as well as the workers of Germany, France, Belgium or Italy.

Railroad employees are not excepted in the contention that the worker may be considered a controlling factor in determining the future of this wage. Through economy in the use of fuel, in the employment of labor, materials and supplies, and a drastic reduction in loss and damage claims, the railroads are getting a greater control over expenses thus enabling them to continue

to pay the prevailing wage. An appreciation of these things by each of us will go a long way toward conserving our interests in this respect. Co-operation should be the keynote of all endeavor and should be sounded far and wide with a sincerity of purpose that will produce real results.

Employees Oppose Bus Line

ONE of the most interesting developments that have been brought to light in recent years in the railroad field is the voluntary organization of railway employees in Minneapolis, Minn., and St. Paul, to present a united front in protest against the growing competition of bus lines in that territory. Representatives of the various brotherhoods and organizations adopted resolutions at the first meeting, asking for regulation and control of the bus lines and charging that the competition offered by these lines is unfair.

The continued increase of bus line competition throughout the country has necessitated, in a great many cases, the curtailment of local passenger runs with a constant unfortunate effect on the employees who have been operating these local trains. While the effect of this unjust competition is perhaps more vital to the employees than to any other group, even including the railroad itself, this is the first instance on record when the men have organized to help solve the problem.—*Georgia and Florida Bulletin.*

A Million Men Idle

THE annual cost of industrial accidents to the country is not far from \$1,000,000,000 a year. About 2,500,000 to 3,000,000 accidents, each resulting in a loss of more than one-day's working time, occur each year. Taking into account all fatal and non fatal accidents, the loss of working time totals 225,000,000 to 300,000,000 working days. To make up this lost working time would occupy 1,000,000 men year in and year out.

To visualize these figures, remember that pre-war immigration averaged 1,000,000 a year. Time lost from accidents at four dollars a day would be worth between \$750,000,000 and \$1,250,000,000 a year. And the added effect of retarded production, lessened efficiency, and lowered morale, within the rest of the work-force, if it could be figured, would swell the cost considerably further. Most important of all, however, is the toll taken in suffering and misery.

Wages are based on the results of your labor; don't let the leaks beat you out of a cent.

Romance in Shipping Apparatus

Experts Have Solved the Problems of Moisture and Rust Which Always Menace Shipments of Machinery and Have Overcome Many Other Difficulties

By C. M. RIPLEY, of the General Electric Company's Publicity Bureau

(Continued from Last Issue)

EXPERT packers have no difficulty in protecting machinery from rain and snow, wind and heat, or from the mist on the sea. This is as easy as for an ordinary citizen to wear a mackintosh or carry an umbrella. But the real deep study has been to overcome the accumulation of moisture on the machinery due to humidity, especially the humidity of foreign countries.

The rain and snow is excluded by tar-coated building paper strengthened by mosquito netting. This light filmy mosquito netting is quite useful in adding strength to the tar paper and serves the purpose admirably.

For packages that go to foreign countries an additional covering of what is known as carriage cloth is used underneath the covering of tar paper. This carriage cloth is wrapped around the machinery itself, and is held tight by strings and ropes so that no matter what position the machinery may be in it is well protected.

For many years the shipments of American machinery were damaged by rust although they were perfectly protected from rain and storm. This rust evidently was produced by the moisture in the air, i. e., the humidity.

Various experiments were tried to overcome this trouble. Special kinds of cloth and special coatings of tar were used, and in some cases an entire metal box of zinc or lead was constructed and apparently hermetically sealed. But these all failed of their purpose.

In one instance a motor was totally enclosed in a zinc tank and soldered tight. Two years later it was opened and there were three quarts of water in the bottom of the tank. Apparently, due to jarring and vibration, some little crack or pinhole had opened up and the box had begun to "breathe." The dampness would condense against the cold machinery, and then in the daytime when the temperature rose the box would breathe out dry air. Thus with the rising and setting of the sun moisture was carried into the box, which was thought to be hermetically sealed.

The shipping men were baffled—they gave up the problem as hopeless. Someone thought of

consulting Dr. Steinmetz, the chief consulting engineer of the General Electric Company at that time. And here is shown the advantage of a complete organization where the experts in different lines can exchange information for the benefit of the several departments.

Dr. Steinmetz advised that the boxes be made open instead of closed, and that breathing holes be provided to keep the temperature inside the box practically the same as the temperature outside the box. The shipping department conducted many experiments and eventually a method was developed which solved the problem. The great generators for the London underground railroad were delivered free of rust, but it was found that the mice on shipboard had taken advantage of the breathing holes in the boxes, and had eaten off the insulation from some of the copper wire. So from that time on a wire screen or netting was tacked on the inside of each hole.

The breathing holes were not made too close to the top, bottom or sides for fear water might wash into them. To provide against the possibilities of these boxes being laid over on one side thus bringing the holes on top, a funnel-shaped shield is tacked on the inside of the box around the hole, and this shield or funnel traps the water and diverts it down the side of the box, away from the machinery.

Shipping experts in Schenectady who have had unequaled opportunity to study these questions say that shipments of General Electric apparatus which may now be lying at the port of Vladivostok, in Russia, are as free from rust and other damage due to the elements as though they had been standing in the shops of the company.

The method just described is for large pieces of apparatus. For the smaller delicate apparatus, such as instruments, which are liable to damage from moisture in very minute quantities, a pitch-covered canvas is used inside the box and not a complaint has been received from any quarter of the world in the three years that this method has been in use. This is applicable especially for boxes which are small enough to be handled by one man. This pitch-covered canvas is more effective than any metal casing because of its

clinging qualities, and the fact that if subjected to pressure or distorted it is not in any way weakened; for the more it is compressed the tighter the wrapping becomes—exactly opposite to the case of a metal box.

From the customer's standpoint it is ideal to receive the completely constructed machine. For instance, the Panama locomotives were built at the factory, shipped on the decks of the vessels, and when lifted onto the pier at Panama they were run off by their own power.

The ideals toward which the packing experts strive, in the order of their importance, are as follows:

1. Get the shipment to the customer without breakage.
2. Get the shipment to the customer without rust or other damage by moisture.
3. Deliver it as nearly completely assembled as possible.
4. Deliver it as quickly as possible.
5. Deliver it with as small an expense for transportation as possible.

So important is the work that a shipping committee has been appointed to standardize this portion of the General Electric Company's work at all of the different factories. The committee consists of eight men from the various works, and they meet four times a year or oftener to discuss problems and settle matters of detail and policy. This committee thus acts as a clearing house of shipping information and experience.

Each type of apparatus has assigned to it a definite box, of definite size and material, put together in a certain way, wrapped, tagged, etc., according to definite specifications, written down and even illustrated.

There are 750 kinds of boxes represented, and directions covering many different methods of loading flat cars, in which are specified the braces, struts, skids, etc., which should be used. All these add not only to the safety but to the speed of shipment.

The United States Government recognizes the value of expert shippers and has created a committee on packing, boxing and crating, as it is now shipping untold millions of tons to all parts of the world.

This committee consists of D. L. Quinn, of the Forest Products Laboratory at the University of Wisconsin; P. C. Morganweck, of the International Harvester Company of Chicago, and M. C. Fitz-Gerald of the General Electric Company at Schenectady. It has prepared standard specifications for packing different types of supplies, apparatus, etc., and personally instructs those officers who have charge of this work at Washington and at the various points of embarkation.

Many officers have visited Schenectady in order to receive instructions in the standardized

method of packing and shipping. It is gratifying to hear that Major General George W. Goethals requires that these specifications be followed to the letter in the actual work of shipping goods abroad.

As an example of the benefit of the recommendations of this committee, we will cite one instance in particular—a shipment of 10,000,000 cases for France. The company was asked to give its recommendations on the boxing of each of these 10,000,000 cases. Although the proposed cases had been whittled down as far as the manufacturer thought it could be done with safety, the committee developed a new method which cheapened the manufacturing cost of each box twenty-five cents and also reduced its cubic displacement one-half cubic foot. This saved \$2,500,000 in the cost of the boxes; but this is not the whole story. The 5,000,000 cubic feet of shipping space which was saved is worth from two to five dollars per cubic foot at standard freight rates, or a further saving of approximately \$20,000,000. And again, from the standpoint of conserving ship space, 5,000,000 cubic feet displacement is equivalent to 125,000 tons, as forty cubic feet of this character is rated as one ton in marine estimates. Thus this one recommendation of the boxing and crating experts conserved shipping equivalent to the combined cargo space of thirty-one 400-ton ships.

Veterans Enjoy "Get Together"

(Continued from Page 7)

Dreamland hall, Oneonta, in the near future, with the Bon Ton orchestra of Oneonta furnishing the music. "Ed" LALOR, assistant trainmaster on the Susquehanna division, was named as chairman of the dance committee as well as being continued chairman of the entertainment committee for the year 1925. Talk of a dance, which will be somewhat in the nature of an "old-fashioned" event, created considerable enthusiasm and will be looked forward to with keen anticipation.

The reports of the secretary and treasurer were made in detail, thus affording the members an opportunity to know just how each dollar taken in during the year had been spent, and both were unanimously accepted.

Brief remarks in appreciation of their reelection were made by PRESIDENT GURNEY, TREASURER CROCKETT and SECRETARY CONNERS. Then when the male members of the party had adjourned to an adjoining room where, between "puffs" wrested from favorite pipes or cigars, many an incident of the past was happily recalled, the members of the Ladies' Auxiliary held their regular meeting, important in the transaction of which was the further development of plans for the forthcoming dance.

Evolution of Power and Power Transmission

(Continued from Last Issue)

The Early Christian Era

A LONG towards the dawn of the Christian era, Alexandria, in Egypt, was the greatest center of learning in the world, and in the great museum and library there were probably a half a million books, as well as a large, organized educational staff where as many as twelve or thirteen thousand students were accommodated.

Invaders in those days made it a practice to destroy everything in sight and Alexandria was no exception, when, in the year 642, the Arabs conquered Egypt and destroyed most of it including the museum and library. These losses were unusually great, as this institution had procured and accumulated the most complete records of the time, which could not be replaced for the reason that few duplicate copies of the records, if any, existed in those days. This condition with the fall of the Roman Empire nearly amounted to a death blow to the arts and sciences of that time.

The new order of thought that had been developed at Alexandria persisted, however, in a very dormant state for several centuries, after which the center of intellectual activity and material civilization drifted westward to Andalusia, where considerable progress was made, but the great social revolution that occurred about that time took men away from intellectual matters and forced their attention to matters of war and politics. This was followed by another period of scientific and mechanical stagnation that lasted several centuries, but it was not until the beginning of the seventeenth century that the nations of Europe quieted down to such an extent that mechanical and other matters of the kind received the attention they deserved.

As a source of power, however, the water wheel was preserved and used for the operation of grain mills, mills for pounding wood pulp for paper making, and mills for crushing sugar cane. Wind-mills seem to have originated in Arabia, or at least the idea of the device is first mentioned in an Arabian legend of the seventh century. Early in the twelfth century this method of utilizing power made its appearance in western Europe but its use was restricted to nobles and monasteries.

About the year 678, a new form of power was developed in connection with the siege of Constantinople, which power consisted of some form of liquid fire that was thrown at enemy ships by a syphon and flexible tube arrangement. This new material, according to account, was semi-explosive, but never was used for mechanical purposes.

In 1250 A. D., there was a saw mill, according to old records, in which the saw was operated by four cams on the shaft of a water wheel, which, with a spring pole, furnished the motion. There was also a crude link action incorporated in this machine. The Chinese, in 1232, used rockets for the purpose of setting fire to enemy forts, and at this time gunpowder was known and in use. After all of these centuries, the best power was still the water wheel, and gunpowder, the forerunner of fire arms, was just coming into important use.

THE FOURTEENTH AND FIFTEENTH CENTURIES.

While Roger Bacon, a scientific student of the thirteenth century, was experimenting with various chemical compounds he somewhat unintentionally developed an explosive combination that resulted in the discovery as to how to manufacture gunpowder. Berthold Schwartz, a monk of Freiburg, studied Bacon's works and carried on the dangerous experimental work, which resulted in his invention of the gun in 1313 A. D. Thus, the human race entered the fourteenth century with a new power and a new method of carrying on the art of war, which seemed to be the main occupation in those days. But this development undoubtedly had great influence in bringing on iron and steel, and the steam engine.

The progress during the fourteenth and fifteenth centuries is shown by drawings and descriptions left by Leonardo da Vinci, a great artist, engineer and inventor of that period, who had, in the latter half of the latter century, summarized as must of the statistics of mechanical philosophy as had been given shape up to that time. Among the power devices described by him are, swinging cranes, a gun using steam instead of powder, a steam jet so pictured that it may have been meant to illustrate the turbine

principle, and there were derricks, a horizontal boring machine and earth drills. A file cutter is shown as being operated by a weight, which arrangement was employed in mills soon thereafter.

Other mechanical devices of a more or less fundamental nature were described by da Vinci, such as, cogs, bevel gears, screw and gear pinions, paddle wheels, linked chains designed to transmit power by running over sprocket wheels, a polishing wheel run by a belt, and a wheel for rope making. The drawings of the chains look quite modern and bear considerable resemblance to the present bicycle chains.

In the year 1338, there is record of a blacksmith forge with a canopy top, and a bellows operated by a compound lever. Some of the military records of about the year 1400, show an elevator that was raised by a balanced pole and rope pulleys, a tower raised by a screw, a syphon operating over a valley and hill, water raising wheels, pulleys, windlasses, paddle-wheel boats and powder used for blasting.

The Italians have records that show the use of rockets for driving torpedoes against the sides of ships about the year 1420. Ten years later, wheels and cams were used to run a stamp mill for powder, and there is also mentioned a process of boring by means of a wheel, and also a pile driver operated by means of a pulley with a very large gang of men to furnish the power. What is said to be, perhaps, the earliest illustration of the belt principle yet found, shows an endless rope running over a wall for transporting supplies, although the rope seems to have been used more as a conveyor than a power transmitting device. This was about the year 1430.

Then eight years later there is a record of an endless chain operated by screw and cogs, for transporting supplies. Some fifteenth century engravings on silver, show a smelter with a bellows operated by a water wheel; and a four-wheel push car that is apparently running on rails, which, if so, is the earliest evidence of a car running on rails yet discovered. The records of 1472 show a wind-wheel propelled vehicle of geared transmission, which indicates the desire for a power vehicle.

The development for these two centuries was slow but the line of thought was improving over what it had been for a thousand years before.

THE SIXTEENTH AND SEVENTEENTH CENTURIES.

Previous to this period the records are all in the form of manuscripts, stone carvings, paintings, engravings, etc., which condition makes it difficult to find out just what had been invented and used, and who the various inventors were.

The "Pirotechnia di Biringucci," published in 1540, shows a water wheel applied to various

manufacturing processes, and in 1545 the first account of the universal joint is found in its application to a compass. Even the ancient tread-mill is still found in use during this period; and a wood-cut of 1568 shows the first illustration of a power belt being used—a hollow-ware worker using it to turn his lathe. Ten years later a chain belt is shown driving a mill.

Other forms of power and power transmission used during the sixteenth century included an elevator-like arrangement for hoisting building material by an endless link chain, mounted on an inclined frame and operated by man power. This was in 1572, while the records, sixteen years later, show a well hoist consisting of a drum operated by a gear and pinion, which was driven by a large horizontal rack wheel that revolved around the well-hole on roller bearings. In the year 1588, a water wheel was used to drive a saw which was fixed to have the work feed against it automatically. During this period the link belt was used for elevating material and the wire rope came into general use.

The early part of the seventeenth century brought into use the method of having the power wheel operate a main shaft to which several machines could be connected by gears or belts. Porta, in 1601, described work that could be done by the steam that he generated in a small boiler, but the first man to discover the vast difference between the characteristics of compressed air and steam, seems to have been Van Helmont, in the year 1610.

In 1629, Branca published, at Rome, a book entitled "Le Machine." He was an original and practical engineer, and one of his descriptions covers a steam turbine driving a small stamp-mill. One of his inventions was a spindle for spinning machines so designed that any trouble with the thread would cause the spindle to slip without breaking the thread. In the second half of the century the forms of gear teeth began to attract attention, but the investigations along this line were conducted mostly by the mathematicians, and, while they made considerable progress, no practical developments occurred for another century.

About this time the problem of producing a machine for utilizing for power purposes some form of force, resulting from pressure or explosion, was receiving considerable attention, and while nothing of practical value was done, the experimental work all had its value in leading the way to the invention of the real steam engine in the eighteenth century.

(To be Continued in Next Issue)

Lost time is never found again, and what we call time enough always proves little enough.

—Poor Richard.

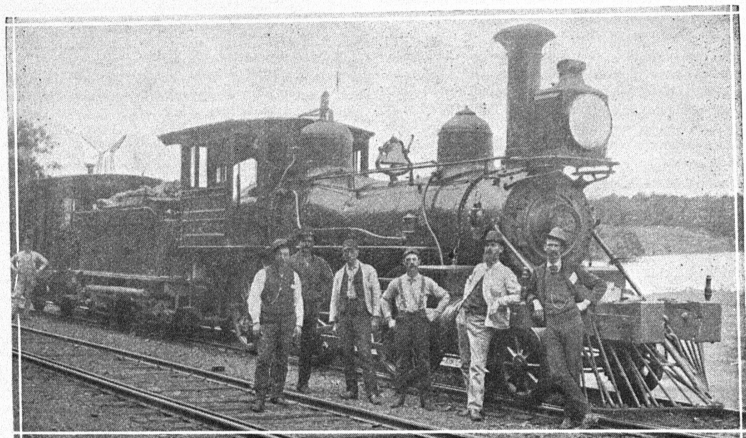
Realized Boyhood's Dreams

(Continued from Page 4)

to keep his engine in good working condition. This work often included the washing of boilers and similar details.

One of the strange experiences of his career came when he arrived at Jefferson Junction one winter's day, with a train of twenty-five cars. The sun was out bright and warm and everything looked fine for a quick trip home. Before leaving, however, he was ordered to set off ten cars, no explanation being forthcoming. This done, a start was made, all members of the crew meanwhile pondering over the unexplained order. But

On the return trip, the train, for the moment, got out of control. About a mile ahead, down the grade, was a high wooden trestle which menaced his course, but fortunately he managed to bring the train to a stop about fifty feet from this structure. The remainder of the trip, after the trestle had been crossed, was equally as exciting for again the train ran wild. So fast did it travel that the fireman declared the ends of the ties resembled somewhat a long, endless plank. Everything, however, was once more in his favor. No trains were in sight as he approached the "D. L." crossover, and he rode safely onto the main.



MR. GARDNER AND CREW OF THE "FIFTY-TWO

In group—(left to right) Jack Hogan, brakeman; next, unknown; Johnnie Cornish, brakeman; Tommy Cornish, fireman; Mr. Gardner, engineer; and, Spence Courtwright, conductor. (Taken at Yatesville. Note "Third Rail" for accommodation of gravity cars.)

an answer was not far off for as they approached Starrucca, they encountered a snow storm which blocked the road for more than twenty-four hours.

The road out of Carbondale at that time was cut through a virgin forest. From Morse's at the upper end of the yard to Forest City and thence on the east side of the road to Stillwater, heavy hemlock timber lined the right-of-way.

In the way of real excitement, he probably got his share on a little stretch of track then known as the Winton branch, which led across the Delaware, Lackawanna and Western tracks at Winton and to a breaker at Marshwood. He had gone to the breaker with a train of ten empties and with orders to bring back as many loads.

In Carbondale, he is regarded as a citizen worthy of the confidence and respect of all who have occasion to meet him. He served as a member of the city's special counsel for two years and from time to time on various committees.

Among his former associates on the road, he enjoys a host of friends. It is not unusual to hear them rate him as "one of the best engineers the Company ever had." Quiet of manner, pleasant, frank in his opinion, appreciative of the rights of others, he is indeed a person whom it is a pleasure to know.

On January 1, 1883, he was married to Miss Harriet Curtis of Wayne county and to them four children were born, one of whom has since died. He is a member of the Baptist church.

Agent's Re-elect Their Officers

AT the annual meeting of The Delaware and Hudson Freight and Ticket Agents' Association, held in Room 408, General Office Building, Albany, N. Y., on Monday, January 19, all of its officers were re-elected for the ensuing year. They are: EDWARD MARTIN of Coopers-town, president; E. J. BRENNER of Wilkes Barre, vice-president for the Pennsylvania division; H. C. BECKER of Binghamton, vice-president for the Susquehanna division; W. A. LITTLE of Hudson Falls, vice-president for the Saratoga division; W. W. COOPER of Rouses Point, vice-president for the Champlain division; and, W. E. CROCKETT of Oneonta, secretary and treasurer. The next meeting will be held in Wilkes Barre at a date to be announced later.

More than fifty members attended the session which was concluded during the forenoon. GEORGE H. BURGESS, chairman valuation committee and real estate agent, and W. J. MULLIN, general traffic manager, were the speakers. MR. BURGESS, in a short but enlightening talk, outlined the work of the Reproduction department and later conducted the agents through that department where they witnessed at first hand the manifold of forms, the preparation of photographic and photostatic work, the making of blue prints and many other details of interest. MR. MULLIN's talk was wholly pertinent to "Tariff Construction," and of much educational value. A visit to the State Museum in the Educational Building was also enjoyed by a majority of the agents as a part of the day's program.

Sketches of Early History

(Continued from Page 6)

FORT CHAMBLEY at the foot of the falls of Chamblay, built in 1664, was for a time known as Fort St. Louis. This was one of the line of forts built by the French as a base for their expeditions against the Iroquois.

* * *

FORT LA PRAIRIE marked the site of a French settlement on the south side of the St. Lawrence above the mouth of the Richelieu. In retaliation for the massacre at Schenectady, Captain John Schuyler surprised it in 1690, killing six and taking nineteen prisoners, and burning all the buildings outside the fort. In 1691, Major Philip Schuyler captured this fort, killing many of its defenders. Schuyler's losses were small.

* * *

FORT ST. JOHN on the Richelieu, a British trading post during the Revolutionary, was surrendered to Montgomery on November 3, 1775, in his advance on Montreal.

* * *

FORT RICHELIEU was built by the French at the mouth of the Richelieu in 1641. It was abandoned later, but in 1664 was rebuilt. This was the first fort built by the French to protect their settlements on the St. Lawrence against the Iroquois from Lake Champlain.

* * *

FORT ST. THERESA, the third in the chain of forts on the Richelieu, was erected by the French in 1664, to offset the Iroquois. It was located nine miles south of the present village of Chamblay.

(Our next article will tell of the early history of Old Saratoga.)

The Bad Man

THE Delaware and Hudson Athletic Association will present the famous Porter Emerson Brown comedy, "The Bad Man," at Vincetian Institute Auditorium, corner Ontario street and Madison avenue, Albany, N. Y., at 8:15 p. m., February 18 and 19. Pine Hills cars stop at the hall which is also but a block distant from Quail street and Madison avenue, where Belt Line cars stop.

"The Bad Man" was the starring vehicle of Holbrook Blinn and ran for an entire season at the Comedy Theater, New York City, under the direction of William Harris, Jr., and later was a sensation on tour. It is a delightful, sparkling comedy, through which a splendid love story is woven.

The dramatic troupe that has been organized to produce this play, has been coached by Frank L. Trenor, an expert in his line, and a smooth-running, enjoyable play is assured.

Exchange tickets not good for admission but which may be exchanged during the period of February 9 to 18, at Room 1001, General Office Building, Albany, N. Y., and at the Storeroom counter, Building No. 6, Colonie, N. Y., are now on sale at the following prices: Orchestra, rows "A" to "O," \$1.65; rows "P" to "U," \$1.10; rows "V" to "W," \$50. Balcony: Rows "A" and "B," \$1.10, and rows "C" to "F," \$50. Prices include the Government tax.

The Beggars

They beg to inquire, and they beg to state,
They beg to advise and they beg to relate;
They beg to observe and they beg to mention,
They beg to call your kind attention;
They beg to remark and they beg to remind,
They beg to inform and you'll herein find;
They beg to announce and they beg to intrude,
They beg to explain and they beg to include,
They beg to acknowledge and they beg to reply,
They reluctantly beg for a moment of time,
They beg to submit you an offer sublime;
Till I wish I could put the annoying array
Of beggars on horseback and send 'em away.

—Carolyn Wells.

Out Along the Line

"D. & H. engines," reported the *Oneonta* (N. Y.) *Daily Star* of January 14, 1895, "are being equipped with the Smith spark arresters and later the Austin patent for the same purpose will be tested on the same engines."

An interlocking plant has been installed at Voorheesville, on the Susquehanna division, thereby eliminating the necessity of bringing trains to a dead stop before proceeding over the tracks of the West Shore which are intersected at that point.

CAPTAIN J. R. JOHLER in charge of police work on the Pennsylvania division, has been elected president of The Delaware and Hudson Police Association for the year of 1925. PATROLMAN MICHAEL McKEON is vice president; INSPECTOR JOHN J. MASKO, secretary, and CAPTAIN WALTER D. FOX, treasurer.

A meeting of New York Central employes has been called for Sunday, February 15, at the Strand Theater, North Pearl Street, Albany, N. Y., for the purpose of formulating ideas relative to broadening the scope of the Veteran organization movement. S. G. COBB, president of The Delaware and Hudson Veterans' Association, has been invited to attend.

Two things may happen that will render all of man's efforts futile and scatter all his plans to the four winds. One is that he may die; the other is that he may be permanently disabled by accident or illness. Our Group Insurance Plan has been provided for that man who would provide for the happiness and welfare of those he loves, if either of these two things should befall him.

A Christmas item may be a little late, perhaps, but the fact that Extra Track Gang No. 2, located at Tunnel, N. Y., on the Susquehanna division, made up in part for the necessity which kept them from their respective homes on that particular day, by fully enjoying an elaborate dinner prepared by their chef, BRUNSWICK STEEVES, is worthy of mention, nevertheless. Tomato bisque, celery, saltines, sweet gherkins, roast goose (stuffed) green peas, mashed and sweet potatoes, apple sauce, mince and pumpkin pie, chocolate cake, Necco sweets, mixed nuts, apples, sweet cider and cafe noir comprised the repast, one surely fit for a king.

Permission has been granted the Company, by the Interstate Commerce Commission, to abandon the Mooers branch, on the Champlain division,

extending from Canada Junction to the International Boundary Line, a distance of 10.1 miles. Travel from Plattsburg to Mooers Junction was inaugurated on July 26, 1852, and from Mooers Junction to the Boundary, September 20, the same year. The line became a link in the first through International rail route between Plattsburg and adjacent points in the State of New York and the city of Montreal. When the New York and Canada was opened from Canada Junction to Rouses Point on September 18, 1876, however, the flow of through traffic took that course, quite to the detriment of the earlier route. These properties were acquired by the Company in 1908 and have since been operated under its management.

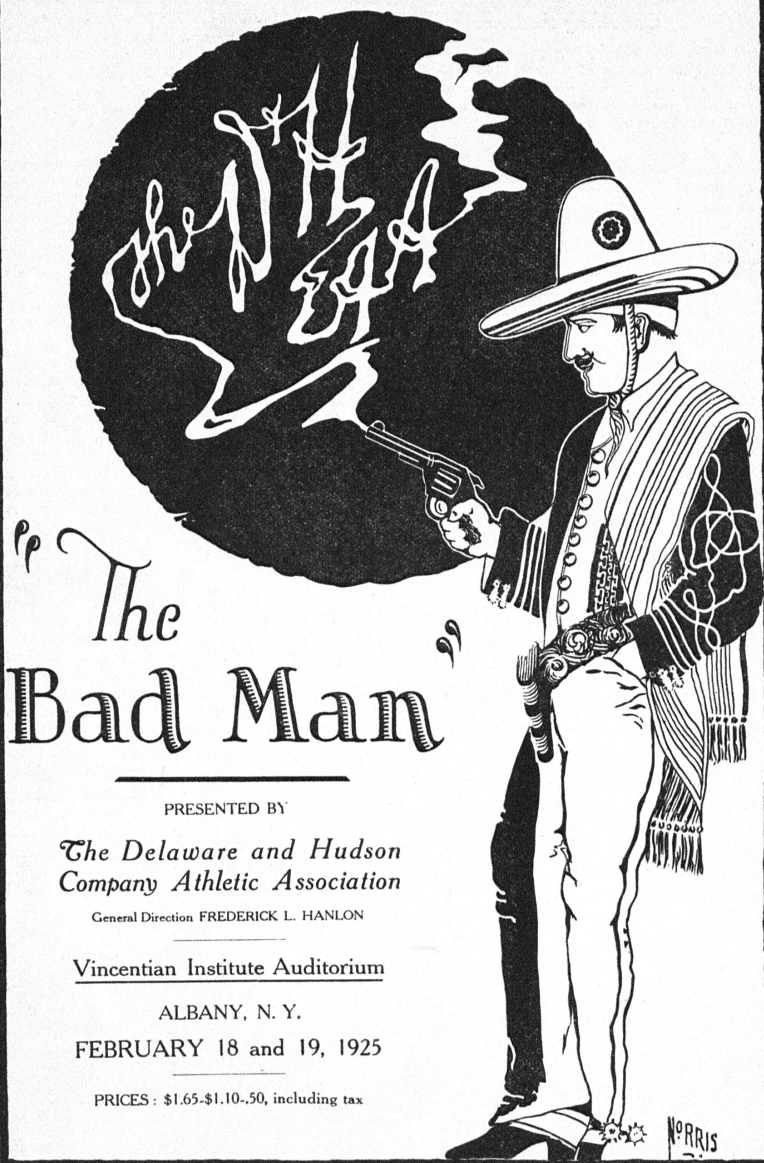
Ausable Chasm

A USABLE CHASM, a particularly entrancing view of which, taken from Elephant's Head, is shown on our cover page, is located in The Delaware and Hudson Adirondack "Summer Paradise," in the vicinity of Port Kent on the Champlain division. It lies at an altitude of 380 feet and has been called the "Yosemite of the East." In relation to other natural wonders of the world, it has been rated as second in importance to Niagara Falls.

This great fissure through a solid mountain of rock, is the result of erosion caused by the flow of the Ausable River throughout the many centuries of the past. In many places these huge walls rise perpendicularly to a height of more than a hundred feet thus affording an unusual opportunity for the study of geologists and, at the same time, a most entrancing scene to the eye of the layman or casual sightseer. The canyon is nearly two miles in length. Long galleries, steel bridges, stone stairways and boats facilitate a tour that is replete with interest throughout.

Rainbow Falls occupies first place, perhaps, among the many outstanding features. Here the river is seen to leap from its sandy bed over a falls seventy feet high and into the Chasm, the startling effects of the light as it mingles with the misty veil often producing a pronounced rainbow hue.

Horseshoe Falls, Pulpit Rock, Elephant's Head, Devil's Oven, Jacob's Ladder, The Fernery, Devil's Punch Bowl, Jacob's Well, Mystic Gorge, Cape Eternity, Hyde's Cave, The Grotto, Smuggler's Pass, Hanging Garden, Table Rock, The Post Office, The Altar, The Anvil, Cathedral Rocks, the Sentinel and other points of interest, each have their peculiar appeal. The Chasm is open from the middle of May until about the middle of October.



The Bad Man

PRESENTED BY

*The Delaware and Hudson
Company Athletic Association*

General Direction FREDERICK L. HANLON

Vincentian Institute Auditorium

ALBANY, N. Y.

FEBRUARY 18 and 19, 1925

PRICES: \$1.65-\$1.10-.50, including tax

NORRIS